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Resources
Conservation
Service

Montana
Basin Outlook Report
May 1, 1995

MONTANA
MONTANA
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Helena, MT 59620-1800
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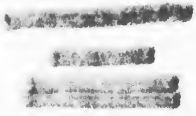

Basin Outlook Reports
and
Federal - State - Private
Cooperative Snow Surveys

For more water supply and resource management information, contact:
See Attached List

How forecasts are made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Natural Resources Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

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United States Department of Agriculture
Natural Resources Conservation Service (formely the Soil Conservation Service)
Bozeman, Montana

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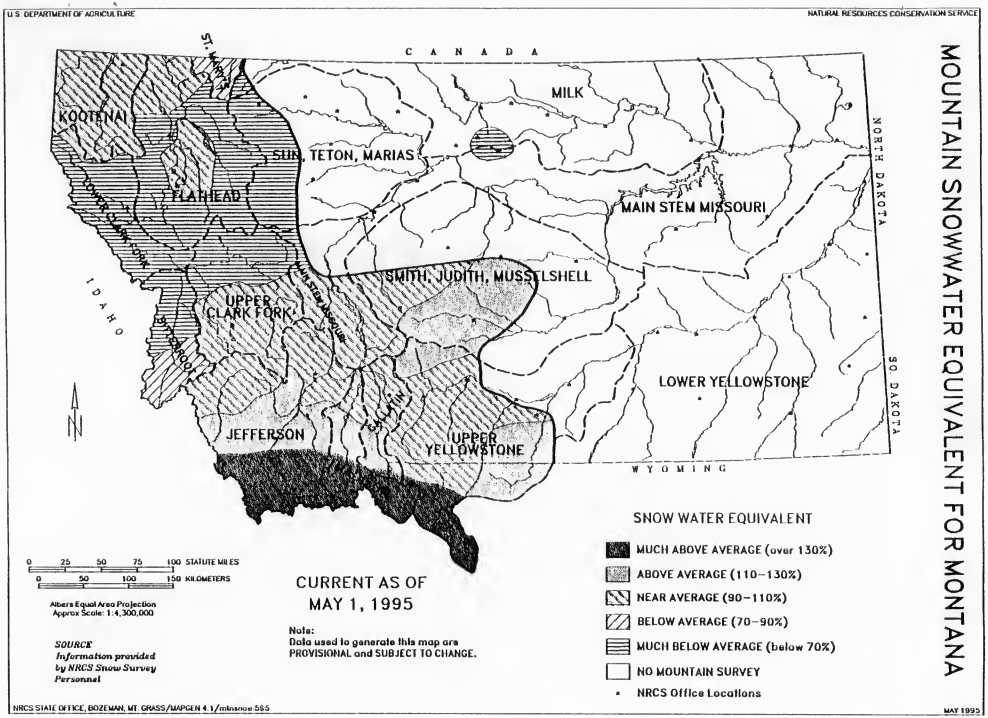
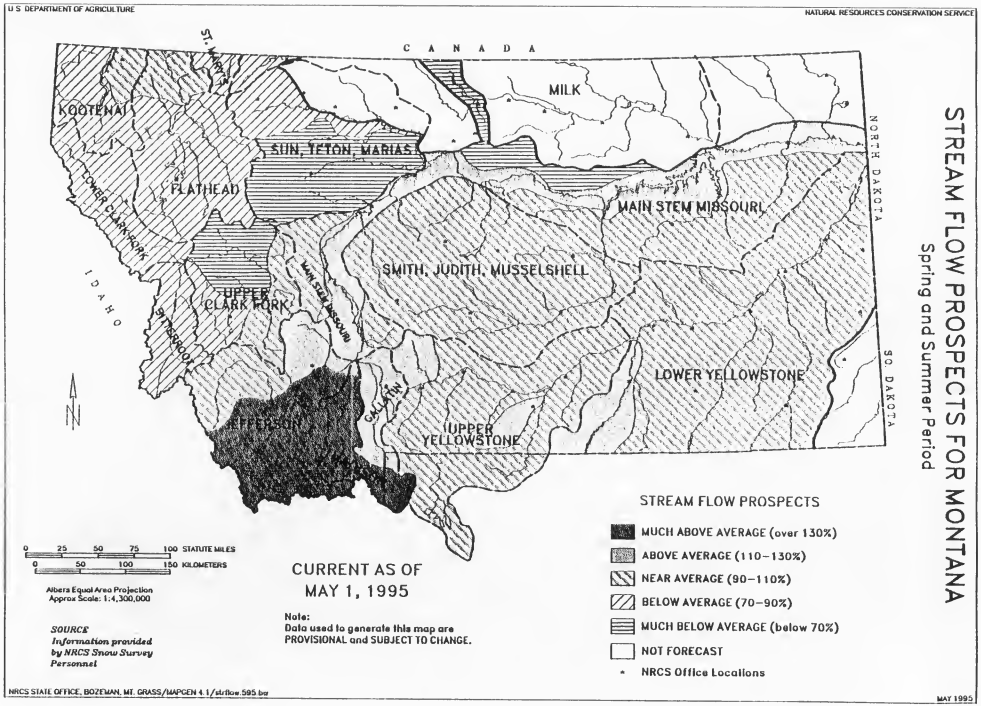
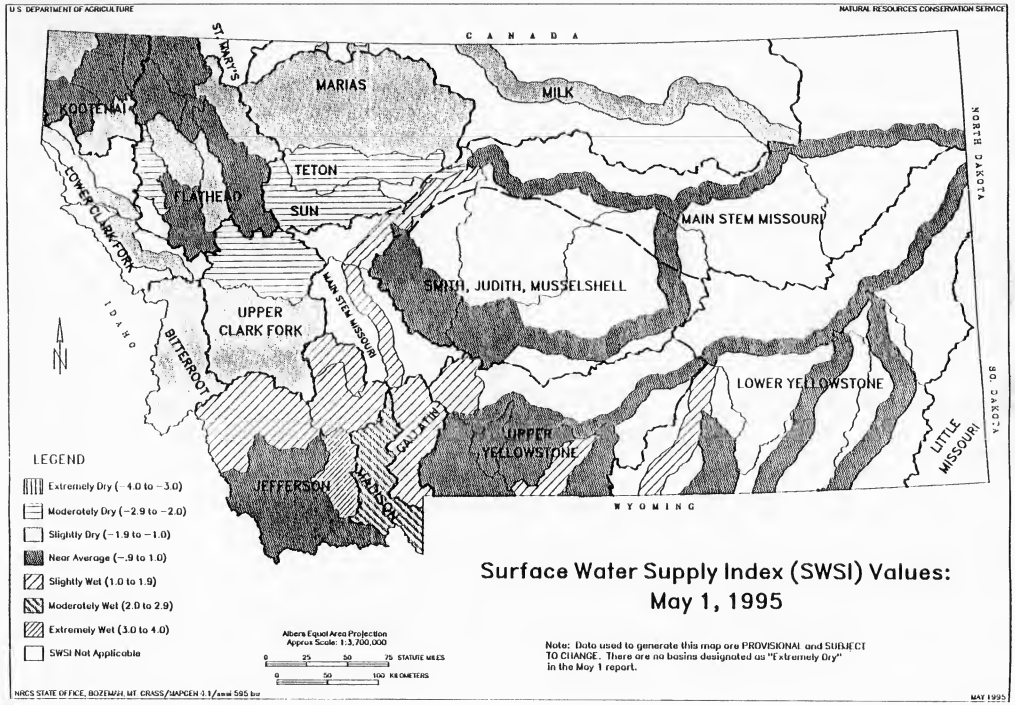

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
MOUNTAIN SNOWWATER EQUIVALENT FOR MONTANA
CANADA
KOOTENAI
FLATHEAD
SUN, TETON, MARIAS
MILK
MAIN STEM MISSOURI
SMITH, JUDITH, MUSSELSHELL
UPPER CLARK FORK
LOWER YELLOWSTONE
JEFFERSON
UPPER YELLOWSTONE
NORTH DAKOTA
SO. DAKOTA
WYOMING
IDAHO
N
0 25 50 75 100 STATUTE MILES
0 50 100 150 KILOMETERS
Albers Equal Area Projection
Approx Scale: 1:4,300,000
SOURCE
Information provided by NRCS Snow Survey Personnel
CURRENT AS OF
MAY 1, 1995
Note:
Data used to generate this map are PROVISIONAL and SUBJECT TO CHANGE.
SNOW WATER EQUIVALENT
MUCH ABOVE AVERAGE (over 130%)
ABOVE AVERAGE (110–130%)
NEAR AVERAGE (90–110%)
BELOW AVERAGE (70–90%)
MUCH BELOW AVERAGE (below 70%)
NO MOUNTAIN SURVEY
NRCS Office Locations
NRCS STATE OFFICE, BOZEMAN, MT. GRASS/MAPGEN 4.1/mtsnow 565
MAY 1995


U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
STREAM FLOW PROSPECTS FOR MONTANA
Spring and Summer Period
C A N A D A
ST. MARY
MILK
KOOTENAI
SUN, TETON, MARIAS
FLATHEAD
LOWER CLARK FORK
MAIN STEM MISSOURI
NORTH DAKOTA
I D A H O
SMITH, JUDITH, MUSSELSHELL
UPPER CLARK FORK
MAIN STEM MISSOURI
BITTERROOT
LOWER YELLOWSTONE
SO. DAKOTA
GALLATIN
JEFFERSON
UPPER YELLOWSTONE
WIN
N
0 25 50 75 100 STATUTE MILES
0 50 100 150 KILOMETERS
Albers Equal Area Projection
Approx Scale: 1:4,300,000
SOURCE
Information provided by NRCS Snow Survey Personnel
CURRENT AS OF MAY 1, 1995
Note:
Data used to generate this map are PROVISIONAL and SUBJECT TO CHANGE.
STREAM FLOW PROSPECTS
MUCH ABOVE AVERAGE (over 130%)
ABOVE AVERAGE (110–130%)
NEAR AVERAGE (90–110%)
BELOW AVERAGE (70–90%)
MUCH BELOW AVERAGE (below 70%)
NOT FORECAST
NRCS Office Locations
NRCS STATE OFFICE, BOZEMAN, MT. GRASS/MAPGEN 4.1/strflow.595.bw
MAY 1995



Surface Water Supply Index (SWSI) Values: May 1, 1995

Note: Data used to generate this map are PROVISIONAL and SUBJECT TO CHANGE. There are no basins designated as "Extremely Dry" in the May 1 report.

BASIN SUMMARY OF SNOW COURSE DATA

MAY 1995

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
MONTANA						
ABUNDANCE LAKE	8800	4/30/95	87	28.0	13.6	22.6
AMBROSE	6480	4/28/95	29	9.9	2.7	12.1
ASHLEY LAKE	4000	4/30/95	0	.0	.0	1.2
ARCH FALLS	7350	4/26/95	52	14.6	8.8	13.7
ASHLEY DIVIDE	4820	4/30/95	0	.0	.0	1.0
BADGER PASS PILLOW	6900	5/01/95	---	34.8	25.4	37.8
BANFIELD MTN PILLOW	5600	5/01/95	---	17.5	9.0	18.3
BAREE CREEK	5500	4/26/95	85	38.1	20.5	43.0
BAREE MIDWAY	4600	4/26/95	65	27.2	19.7	29.4
BAREE TRAIL	3800	4/26/95	0	.0	.0	1.3
BARKER LAKES PILLOW	8250	5/01/95	---	20.9	10.9	16.0
BASIN CREEK PILLOW	7180	5/01/95	---	15.8	10.4	10.0
BASSOO PEAK	5150	4/27/95	0	.0	.0	5.7
BEAGLE SPGS PILLOW	8850	5/01/95	---	12.5	2.8	8.8
BEAR BASIN	8150	4/26/95	71	26.2	14.0	22.0
BEAVER CREEK PILLOW	7850	5/01/95	---	25.3	10.7	20.5
BIG CREEK	6750	4/26/95	116	48.6	30.9	49.8
BIG SNOWY	7150	5/01/95	81	26.9	18.2	24.3
BISSON CREEK PILLOW	4920	5/01/95	---	4.0	.0	2.5
BISSON CREEK	4920	4/27/95	16	5.4	.0	3.5
BLACK BEAR PILLOW	7950	5/01/95	---	64.9	30.0	39.8
BLACK BEAR	7950	4/27/95	126	59.2	30.8	42.2
BLACK MOUNTAIN	7750	4/25/95	62	19.0	11.0	17.8
BLACK PINE PILLOW	7100	5/01/95	---	11.9	5.2	12.0
BLACKTAIL	5650	4/29/95	21	7.8	.2	7.0
BLOODY DICK PILLOW	7550	5/01/95	---	16.6	6.2	10.5
BLUE LAKE	5900	4/30/95	50	18.7	14.4	23.9
BOTS SOTS	7750	4/26/95	45	10.0	2.5	8.1
BOULDER MTN PILLOW	7950	5/01/95	---	26.9	17.0	21.7
BOX CANYON PILLOW	6700	5/01/95	---	6.5	2.5	3.8
BOX CANYON	6670	4/28/95	20	5.4	.0	7.8
BOXELDER CREEK	5100	4/27/95	8	2.6	1.7	2.2
BRANHAM LAKES	8850	4/26/95	108	42.3	15.2	33.2
BRIDGER BOWL PILLOW	7250	4/26/95	---	31.1	15.9	28.0
BRIDGER BOWL	7250	4/26/95	79	32.3	18.4	29.0
BRUSH CREEK TIMBER	5000	4/28/95	1	.4	.0	6.0
BULL MOUNTAIN	6600	4/27/95	0	.0	.0	3.1
CABIN CREEK	5200	4/29/95	1	.1	.0	1.9
CALL ROAD	8050	5/01/95	57	18.2	6.6	13.0
CALVERT CR PILLOW	6430	5/01/95	---	3.2	1.2	3.4
CAMP SENIA	7890	4/26/95	50	9.7	3.0	8.4
CARROT BASIN PILLOW	9000	5/01/95	---	39.7	21.7	31.2
CARTER CREEK	7400	4/27/95	41	13.6	.5	--
CHESSMAN RESERVOIR	6200	4/25/95	4	.5	.4	2.4
CHICKEN CREEK	4060	4/22/95	18	7.1	.0	3.6
CLOVER MDW PILLOW	8800	5/01/95	---	26.4	12.7	19.0
COLE CREEK PILLOW	7850	5/01/95	---	25.6	19.1	20.6
COMBINATION PILLOW	5600	5/01/95	---	.0	.0	3.2
COPPER BOTTOM PILLOW	5200	5/01/95	---	.0	1.9	8.1
COPPER CAMP PILLOW	6950	5/01/95	---	25.7	15.2	35.3

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
COPPER MOUNTAIN	7700	4/24/95	51	17.3	4.5	10.6
COTTONWOOD CREEK	6400	4/25/95	36	11.8	4.2	7.6
COYOTE HILL	4200	4/28/95	0	.0	.0	3.0
CRYSTAL LAKE PILLOW	6050	5/01/95	---	15.2	4.6	10.9
CRYSTAL LAKE	6050	4/27/95	40	15.9	4.9	11.8
DAD CREEK LAKE	8400	5/01/95	75	24.8	11.8	16.6
DAISY PEAK	7600	4/27/95	34	9.9	2.2	8.7
DALY CREEK PILLOW	5780	5/01/95	---	4.5	.0	5.8
DALY CREEK	5780	4/29/95	23	7.9	5.4	11.3
DARKHORSE LK. PILLOW	8700	5/01/95	---	40.8	23.8	35.3
DAVIS CREEK	5400	4/26/95	48	21.2	8.8	21.5
DEADMAN CR PILLOW	6450	5/01/95	---	8.0	4.6	6.9
DISCOVERY BASIN	7050	4/27/95	37	11.8	4.6	10.0
DIVIDE PILLOW	7800	5/01/95	---	19.4	7.2	12.1
DIX HILL	6400	4/30/95	0	.0	.0	4.4
DUPUYER CREEK PILLOW	5750	5/01/95	---	3.5	8.1	8.5
EAST FORK R.S.	5400	4/29/95	0	.0	.0	.9
ELK HORN SPRINGS	7800	4/30/95	41	11.0	.4	7.7
ELK PEAK	8000	4/24/95	56	17.6	12.3	19.2
EMERY CREEK PILLOW	4350	5/01/95	---	4.3	3.8	8.5
FATTY CREEK	5500	4/26/95	57	23.2	17.2	23.6
FISHER CREEK PILLOW	9100	5/01/95	---	38.9	26.8	38.7
FIVE-BULL	5700	5/01/95	6	1.0	.4	3.2
FLATTOP MTN PILLOW	6300	5/01/95	---	49.7	35.6	48.4
FLEECER RIDGE	7500	4/27/95	39	13.0	4.4	8.4
FOOLHEN	8280	4/30/95	68	20.9	10.5	18.2
FOUR MILE	6900	4/26/95	26	8.0	2.1	6.9
FOURTH OF JULY	3450	4/28/95	0	.0	--	1.0
FREIGHT CREEK	6000	4/30/95	36	10.4	9.0	13.2
FROHNER MDWS PILLOW	6480	5/01/95	---	7.1	4.4	7.1
GARVER CREEK PILLOW	4250	4/26/95	---	3.0	3.2	3.3
GARVER CREEK	4250	4/26/95	9	3.2	.0	4.0
GOAT MOUNTAIN	7000	4/29/95	10	2.3	2.9	8.6
GOLD STONE	8100	4/30/95	64	21.0	10.4	18.0
GRASSHOPPER	7000	4/24/95	14	5.2	.9	4.6
GRAVE CRK PILLOW	4300	5/01/95	---	4.3	2.2	9.0
GRIFFIN CR DIVIDE	5150	4/27/95	10	3.5	.0	6.3
HAND CREEK PILLOW	5030	5/01/95	---	3.5	3.8	8.3
HAWKINS LAKE PILLOW	6450	5/01/95	---	26.6	14.8	30.4
HEBGEN DAM	6550	4/26/95	22	9.3	.0	6.8
HELL ROARING DIVIDE	5770	4/28/95	72	30.5	19.6	30.1
HERRIG JUNCTION	4850	4/22/95	63	25.4	15.1	23.2
HOLBROOK	4530	5/01/95	0	.0	.0	1.7
HOODOO BASIN PILLOW	6050	5/01/95	---	40.8	27.5	47.2
HOODOO BASIN	6050	5/01/95	---	42.1E	28.6	51.2
HOODOO CREEK	5900	5/01/95	---	34.4E	23.4	47.1
ICEBERG LAKE NO 3	5600	4/28/95	55	24.5	24.3	29.2
INDEPENDENCE	7850	4/28/95	48	16.2	12.9	17.0
INTERGAARD	6450	4/26/95	22	7.0	1.6	7.2
JOHNSON PARK	6450	4/27/95	0	.0	.2	2.3
JOSEPHINE LOWER NO 9	4900	4/27/95	10	4.8	8.7	15.1
KIWANIS CAMP	3720	4/27/95	0	.0	.0	.2
KRAFT CREEK PILLOW	4750	5/01/95	---	.0	.1	5.8
LAKE CREEK	6100	5/01/95	16	7.3	.0	3.1
LAKEVIEW CANYON	6930	5/01/95	45	14.0	1.8	11.0
LAKEVIEW RDG. PILLOW	7400	5/01/95	---	15.1	.0	9.2
LEMHI RIDGE PILLOW	8100	5/01/95	---	18.0	7.5	10.8

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
LICK CREEK PILLOW	6860	5/01/95	---	15.7	4.7	11.2
LITTLE PARK	7400	4/26/95	55	19.2	9.0	16.4
LOGAN CREEK	4300	4/28/95	1	.2	.0	2.2
LONE MOUNTAIN	8880	4/26/95	77	29.5	12.5	25.2
LOWER TWIN PILLOW	7900	5/01/95	---	30.9	12.3	21.9
LOWER TWIN	7900	4/26/95	80	31.8	11.2	23.8
LUBRECHT PILLOW	4680	5/01/95	---	.0	.0	1.7
LUBRECHT FLUME	4680	5/01/95	0	.0	.0	.5
LUBRECHT FOREST NO 3	5450	5/01/95	0	.0	.0	3.0
LUBRECHT FOREST NO 4	4650	5/01/95	0	.0	.0	.2
LUBRECHT FOREST NO 6	4040	5/01/95	0	.0	.0	.1
LUBRECHT HYDROPLOT	4200	5/01/95	0	.0	.0	.1
MADISON PLT PILLOW	7750	5/01/95	---	35.6	16.8	23.8
MANY GLACIER PILLOW	4900	5/01/95	---	.0	1.8	8.0
MARIAS PASS	5250	4/28/95	11	5.2	11.4	14.4
MAYNARD CR PILLOW	6210	4/26/95	---	12.7	5.0	11.3
MAYNARD CREEK	6210	4/26/95	38	13.5	7.8	15.2
MIDDLE MILL CREEK	7850	4/26/95	60	18.7	5.4	16.6
MILL CREEK	7500	4/28/95	43	13.4	8.3	11.0
MINERAL CREEK	4000	4/29/95	10	3.4	9.8	11.2
MONUMENT PK PILLOW	8850	5/01/95	---	25.5	14.3	23.8
MOSS PEAK PILLOW	6780	5/01/95	---	47.9	28.5	41.8
MOUNT ALLEN NO 7	5700	4/27/95	76	34.9	35.0	43.8
MT LOCKHART PILLOW	6400	5/01/95	---	19.2	15.6	21.9
MULE CREEK PILLOW	8300	5/01/95	---	21.7	9.2	17.0
NEVADA CREEK PILLOW	6480	5/01/95	---	14.2	5.3	12.5
NEWTON MOUNTAIN	5600	4/28/95	79	35.2	23.8	35.4
NEZ PERCE CMP PILLOW	5650	5/01/95	---	10.4	6.1	11.7
NEZ PERCE CREEK	6600	4/24/95	14	6.0	.2	3.4
NEZ PERCE PASS	6570	4/29/95	21	7.5	2.0	13.9
NOISY BASIN PILLOW	6040	5/01/95	---	46.3	26.8	44.0
N.F. ELK CR PILLOW	6250	5/01/95	---	9.2	2.5	9.6
N.F. ELK CREEK	6250	5/02/95	28	9.0	2.5	12.3
NF JOCKO PILLOW	6330	5/01/95	---	31.0	30.1	48.3
NORTH FORK JOCKO	6330	4/26/95	70	30.5	26.8	44.6
N.E. ENTRANCE PILLOW	7350	5/01/95	---	5.2	.0	5.9
NORTHEAST ENTRANCE	7350	4/30/95	19	5.0	.3	6.1
NOTCH	8500	5/01/95	90	37.1	11.6	18.5
OPHIR PARK	7150	4/30/95	41	14.4	8.2	17.4
PETERSON MDW PILLOW	7200	4/27/95	---	13.8	7.2	11.3
PETERSON MEADOWS	7200	4/27/95	41	12.9	5.0	11.0
PICKFOOT CRK PILLOW	6650	5/01/95	---	3.9	.7	4.8
PICKFOOT CREEK	6650	4/26/95	6	2.2	.6	6.8
PIEGAN PASS NO 6	5500	4/27/95	64	29.2	33.0	37.5
PIKE CREEK PILLOW	5930	5/01/95	---	20.3	20.7	27.8
PIPESTONE PASS	7200	4/26/95	27	10.2	2.0	5.0
PLACER BASIN PILLOW	8830	5/01/95	---	23.0	15.8	21.2
PORCUPINE PILLOW	6500	5/01/95	---	8.6	.0	3.9
POTOMAGETON PARK	7150	4/26/95	33	12.6	.0	9.4
PTARMIGAN	5800	4/28/95	67	29.6	28.5	36.2
RED MOUNTAIN	6000	4/27/95	48	17.8	9.9	17.5
RED TOP	5260	4/27/95	62	25.5	15.8	28.8
REVAIS CREEK	4800	4/26/95	0	.0	.0	.0
ROCK CREEK	5600	4/27/95	22	8.4	.6	5.4

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
ROCK CREEK MEADOW	8160	4/28/95	76	25.8	18.1	24.2
ROCKER PEAK PILLOW	8000	5/01/95	---	19.0	12.6	17.7
ROCKY BOY PILLOW	4700	4/27/95	---	.0	.4	1.9
ROCKY BOY	4700	4/27/95	0	.0	.2	1.4
SACAJAWEA	6550	4/26/95	42	15.6	4.3	12.7
SADDLE MTN PILLOW	7900	5/01/95	---	30.5	15.6	27.6
SHORT CREEK PILLOW	7000	5/01/95	---	8.7	.0	2.0
SHOWER FALLS PILLOW	8100	5/01/95	---	29.3	20.8	28.0
SILVER RUN PILLOW	6630	5/01/95	---	2.2	.0	1.2
SKALKAHO PILLOW	7260	5/01/95	---	24.9	14.1	26.2
SLIDE ROCK MOUNTAIN	7100	4/28/95	37	12.9	8.2	17.2
SMUGGLER MINE	6960	4/26/95	42	13.6	.0	9.0
S.F. SHIELDS PILLOW	8100	5/01/95	---	26.5	10.8	19.1
SPOTTED BEAR MTN.	7000	4/30/95	0	.0	.0	9.6
SPUR PARK PILLOW	8100	5/01/95	---	23.0	20.7	23.6
SQUAW PEAK	6150	4/26/95	29	11.1	6.6	15.6
STAHL PEAK PILLOW	6030	5/01/95	---	43.4	26.3	36.5
STEMPLE PASS	6600	4/25/95	23	6.4	4.0	10.3
STORM LAKE	7780	4/27/95	58	16.2	8.2	15.0
STRYKER BASIN	6180	4/22/95	95	37.0	23.7	35.8
STUART MOUNTAIN	7400	4/26/95	70	28.5	18.2	32.3
SUCKER CREEK	3960	4/27/95	0	.0	.3	.3
TAYLOR ROAD	4080	4/27/95	0	.0	.0	.5
TEN MILE LOWER	6600	4/25/95	21	5.6	2.2	5.4
TEN MILE MIDDLE	6800	4/25/95	47	12.8	7.6	12.4
TEPEE CREEK PILLOW	8000	5/01/95	---	21.9	7.6	13.0
TIMBERLINE CREEK	8850	4/26/95	83	20.2	11.8	17.8
TIZER BASIN PILLOW	6840	5/01/95	---	13.8	4.8	10.3
TRAIL CREEK	7090	5/01/95	36	13.0	2.0	6.3
TRINKUS LAKE	6100	4/30/95	96	38.2	28.0	43.1
TRUMAN CREEK	4060	4/29/95	0	.0	.0	.6
TV MOUNTAIN	6800	4/29/95	44	15.6	9.0	18.7
TWELVEMILE PILLOW	5600	5/01/95	---	2.8	.0	12.4
TWENTY-ONE MILE	7150	4/30/95	55	20.9	6.5	14.8
TWIN CREEKS	3580	4/30/95	0	.0	.0	1.8
UPPER HOLLAND LAKE	6200	4/30/95	71	28.0	23.8	35.2
WALDRON PILLOW	5600	5/01/95	---	4.5	5.5	6.5
WARM SPRINGS PILLOW	7800	5/01/95	---	24.4	16.4	24.9
WEASEL DIVIDE	5450	4/26/95	82	36.9	23.0	33.6
WEST YELL'ST PILLOW	6700	4/30/95	---	7.0	.0	5.3
WEST YELLOWSTONE	6700	4/30/95	36	12.4	.0	7.1
WHISKEY CREEK PILLOW	6800	5/01/95	---	24.3	9.7	15.2
WHITE MILL PILLOW	8700	5/01/95	---	29.0	20.0	26.3
WHITE PINE RIDGE	8850	5/01/95	38	13.7	2.3	5.8
WILLOW CREEK	6500	4/27/95	25	5.8	1.2	4.4
WOOD CREEK PILLOW	5960	5/01/95	---	7.3	6.2	8.6
WRONG CREEK	5700	4/27/95	5	1.6	2.6	9.2
WRONG RIDGE	6800	4/28/95	37	13.0	10.4	18.6

MONTANA Water Supply Outlook Report as of May 1, 1995

April did not want to warm up and quit snowing. Cold April showers have delayed the blooming of May flowers in many areas. Several storms tracked across Montana, with the most significant mountain precipitation gains in the central region. Cold air from Canada collided with southerly moisture producing above normal snow accumulations. Significant snow water accumulations continued into the last day of April. Air temperatures were below normal and have delayed spring runoff in most areas.

SNOWPACK

As of May 1, mountain snow water conditions across Montana were 4 percent above average; 88 percent above last year; and increased 16 percent during April. Several storms added substantial snow water to many regions across the state.

Snowpack extremes occurred in the Sun River Basin where the snow water content was 38 percent below average and 17 percent above last year and in the Upper Madison River Basin where the snow water content was 54 percent above average and 176 percent above last year. The Upper Madison has set a new record high snow water content, previously set in 1974.

West of the Continental Divide, snow water content was 13 percent below average; 62 percent above last year; and decreased 4 percent during April. East of the Continental Divide, snow water content was 19 percent above average; 96 percent above last year; and increased 16 percent during April.

RIVER BASIN	% OF AVERAGE	% OF LAST YEAR
COLUMBIA	87	162
KOOTENAI	94	172
FLATHEAD	87	145
UPPER CLARK FORK	88	174
BITTERROOT	79	195
LOWER CLARK FORK	76	164
MISSOURI	120	216
MISSOURI HEADWATERS	134	250
JEFFERSON	137	259
MADISON	143	271
GALLATIN	117	195
MISSOURI MAINSTEM	89	146
HEADWATERS MAINSTEM	107	182
SMITH-JUDITH-MUSSELSHELL	113	187
SUN-TETON-MARIAS	70	107
MILK	57	118
ST. MARY	77	100
YELLOWSTONE	117	176
UPPER YELLOWSTONE	119	185
LOWER YELLOWSTONE (WYOMING)	117	171
WIND	123	200
SHOSHONE	129	185
BIGHORN	124	171
TONGUE	101	128
POWDER	117	184

PRECIPITATION

April precipitation across the state was 14 percent above average and 26 percent above last year, while water year precipitation was 8 percent above average and 38 percent above last year.

West of the Continental Divide, April precipitation was 3 percent below average and 5 percent below last year and water year precipitation was 1 percent above average and 38 percent above last year. East of the Continental Divide, April precipitation was 36 percent above average and 38 percent above last year and water year precipitation was 16 percent above average and 38 percent above last year.

RIVER BASIN	APRIL % OF AVERAGE	WATER YEAR % OF AVERAGE
COLUMBIA	97	101
KOOTENAI	77	104
FLATHEAD	86	100
UPPER CLARK FORK	117	96
BITTERROOT	98	100
LOWER CLARK FORK	80	98
MISSOURI	136	114
JEFFERSON	158	126
MADISON	147	134
GALLATIN	159	117
MISSOURI MAINSTEM	136	99
SMITH-JUDITH-MUSSELSHELL	135	103
SUN-TETON-MARIAS	104	92
MILK	112	99
ST. MARY	85	97
YELLOWSTONE	140	118
UPPER YELLOWSTONE	148	115
LOWER YELLOWSTONE	137	122
WIND	157	116
SHOSHONE	161	128
BIGHORN	124	125
TONGUE	96	120
POWDER	113	133

RESERVOIRS

Major reservoir storage across the state was 10 percent below average and 25 percent below last year.

West of the Continental Divide, reservoir storage was 6 percent above average and 9 percent above last year. East of the Continental Divide, reservoir storage was 1 percent above average and 10 percent below last year.

RESERVOIRS (continued)

RIVER BASIN	% OF AVERAGE	% OF LAST YEAR
COLUMBIA	90	75
KOOTENAI	121	102
FLATHEAD	90	121
UPPER CLARK FORK	106	88
BITTERROOT	95	95
LOWER CLARK FORK	157	103
MISSOURI	102	84
JEFFERSON	95	81
MADISON	90	78
GALLATIN	117	98
MISSOURI MAINSTEM	101	97
SMITH-JUDITH-MUSSELSHELL	106	80
SUN-TETON-MARIAS	110	84
MILK	93	73
ST. MARY	99	45
YELLOWSTONE	107	100
UPPER YELLOWSTONE	115	103
LOWER YELLOWSTONE	99	98

STREAMFLOW

SEASONAL STREAMFLOW FORECASTS

Streamflow forecasts, for the period May through July, across Montana were 1 percent above average and 61 percent above last year's forecasts.

West of the Continental Divide, May through July streamflows are forecast to be 13 percent below average and 36 percent above last years forecasts. East of the Continental Divide, May through July streamflows are forecast to be 10 percent above average and 86 percent above last years forecasts.

RIVER BASIN	FORECASTS % OF AVERAGE	FORECASTS % OF LAST YEAR
COLUMBIA	87	136
KOOTENAI	90	125
FLATHEAD	79	114
UPPER CLARK FORK	73	144
BITTERROOT	78	168
LOWER CLARK FORK	113	129
MISSOURI	106	194
JEFFERSON	137	346
MADISON	134	188
GALLATIN	117	181
MISSOURI MAINSTEM	123	215
SMITH-JUDITH-MUSSELSHELL	96	134
SUN-TETON-MARIAS	73	104
MILK	62	87

STREAMFLOW (continued)

RIVER BASIN	FORECASTS % OF AVERAGE	FORECASTS % OF LAST YEAR
ST. MARY	82	117
YELLOWSTONE	109	152
UPPER YELLOWSTONE	106	149
LOWER YELLOWSTONE	112	156

NOTE: The FORECAST AS % OF LAST YEAR column above, is this years forecast as a percent of last years forecast, not of what actually occurred.

PEAK STREAMFLOW FORECASTS

Streamflow peak forecasts in the Columbia River Basin are estimated to occur during the third week of May to the first week of June with peak flows averaging 48 to 15 percent below average; the Missouri River Basin around the first to middle of June, with peaks averaging 5 percent below average to 33 percent above average; and the Yellowstone River Basin from the second to third week of June, with peak flows averaging 12 percent below average to 24 percent above average.

Peak streamflow forecasts for unregulated streams are as follows:

	PEAK DAILY Range (CFS)	PEAK DAILY % OF AVERAGE
COLUMBIA RIVER		
Blackfoot near Bonner	3,200 to 6,100	35 to 67
Clark Fork above Missoula	7,500 to 12,500	48 to 80
Bitterroot near Darby	3,900 to 6,100	66 to 104
Clark Fork below Missoula	17,000 to 27,500	56 to 91
Clark Fork at St. Regis	20,500 to 32,000	54 to 84
North Fork Flathead near Columbia Falls	14,500 to 21,250	71 to 104
Middle Fork Flathead near West Glacier	10,500 to 16,000	48 to 73
MISSOURI RIVER		
Big Hole near Melrose	6,700 to 9,700	91 to 131
Ruby above Ruby Reservoir	1,300 to 1,800	131 to 182
Gallatin near Gateway	5,350 to 6,700	103 to 129
Gallatin near Logan	5,200 to 7,100	98 to 134
Missouri at Toston	21,250 to 29,250	119 to 164
Marias near Shelby	3,100 to 6,000	30 to 58
South Fork Musselshell above Martinsdale	600 to 1,000	49 to 81
YELLOWSTONE RIVER		
Yellowstone at Corwin Springs	15,000 to 20,750	90 to 123
Yellowstone at Livingston	17,500 to 23,500	88 to 119
Boulder near Big Timber	4,400 to 6,400	87 to 127

PEAK STREAMFLOW FORECASTS (continued)

	PEAK DAILY Range (CFS)	PEAK DAILY % OF AVERAGE
Stillwater near Absarokee	5,500 to 8,300	87 to 132
Clarks Fork near Belfry	6,500 to 9,200	87 to 123
Yellowstone at Billings	35,000 to 49,500	86 to 121

NOTE: The low number in the flow range represents the maximum daily flow that would be expected to occur with little rainfall during the peak snowmelt period. The high number in the flow range could be expected with moderate amounts of rain about the same time as maximum snowmelt runoff is occurring.

SURFACE WATER SUPPLY INDEX

The Surface Water Supply Index (SWSI) is an indicator of surface water supply conditions for the spring and summer months. Water users that rely on mountain precipitation can use the index to evaluate seasonal surface water supplies. The SWSI accounts for mountain snowpack, mountain precipitation, streamflow, reservoir storage, and soil moisture.

SWSI RATING	SURFACE WATER CONDITION
+3.0 to +4.0	Extremely Wet
+2.0 to +3.0	Moderately Wet
+1.0 to +2.0	Slightly Wet
-1.0 to +1.0	Near Average
-1.0 to -2.0	Slightly Dry
-2.0 to -3.0	Moderately Dry
-3.0 to -4.0	Extremely Dry

SWSI	Basin
-0.3	Kootenai River at Ft. Steele (Kootenai in Canada)
+0.2	Tobacco River
-0.1	Kootenai Ft. Steele to Libby Dam
+0.7	Kootenai River below Libby Dam
-1.5	Fisher River
-1.4	Yaak River
-0.4	North Fork Flathead River
-1.5	Middle FORK Flathead River
-0.6	South Fork Flathead River
-0.8	Flathead River at Columbia Falls
-0.6	Stillwater/Whitefish Rivers
-1.1	Swan River
-1.2	Flathead River at Polson
-0.9	Mission Valley
-2.7	Little Bitterroot River
-0.5	Clark Fork River above Rock Creek
-2.0	Blackfoot River
-1.4	Clark Fork River above Missoula
-1.2	Bitterroot River
-1.1	Clark Fork River below Bitterroot River
-1.2	Clark Fork River below Flathead River
+0.7	Beaverhead River
+3.1	Ruby River

SURFACE WATER SUPPLY INDEX

SWSI	Basin
+1.0	Big Hole River
+1.4	Boulder River (Jefferson)
+1.2	Jefferson River
+2.4	Madison River
+1.8	Gallatin River
+1.7	Missouri River above Canyon Ferry
+1.3	Missouri River below Canyon Ferry
-0.3	Smith River
-2.5	Sun River
-2.6	Teton River
-2.2	Birch/Dupuyer Creeks
-1.2	Marias River
+0.5	Musselshell River
+0.8	Missouri River above Ft. Peck
+0.2	Missouri River below Ft. Peck
-1.7	Milk River
+0.5	Yellowstone River above Livingston
+1.6	Shields River
+0.2	Boulder River (Yellowstone)
+0.6	Stillwater River
+1.2	Rock/Red Lodge Creeks
+0.2	Clarks Fork River
+0.4	Yellowstone River above Bighorn River
+1.5	Bighorn River below Bighorn Lake
-0.5	Little Bighorn River
+0.9	Yellowstone River below Bighorn River
+0.3	Tongue River
+0.6	Powder River

KOOTENAI RIVER BASIN in Montana as of May 1, 1995

Snowpack conditions in the Kootenai River Basin of Montana and Canada were slightly below average. Snow water content for the Kootenai in Montana was 6 percent below average; 72 percent above last year; and increased 8 percent during April. Snow water content for the East Kootenai in Canada was 3 percent below average; 32 percent above last year; and increased 10 percent during April.

Watershed Snowpack Analysis

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
KOOTENAI MAINSTEM	3	186	98
TOBACCO	3	164	107
FISHER	5	157	79
YAAK	6	177	94
KOOTENAI ab BONNERS FERRY	41	146	96
KOOTENAI in MONTANA	16	172	94

Mountain precipitation during April was 25 percent below average and 12 percent above last year. Valley precipitation during April was 7 percent below average and 51 percent above last year. Water year precipitation, beginning October 1, 1993, was 4 percent above average and 52 percent above last year.

Lake Koocanusa storage, on the last day of April, was 21 percent above average and 2 percent above last year.

Reservoir Storage (1000AF) End of April

Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
LAKE KOOCANUSA	5748.0	2924.0	2874.0	2409.0

Streamflows, for the period May through July, are forecast to be 10 percent below average and 25 percent above last years forecasts.

The Fisher River near Libby is forecast to reach peak flows between May 3 and May 10 with daily peak flow ranging from 1,500 cfs to 2,500 cfs or 39 percent below average to 1 percent above average. The Yaak near Troy is forecast to reach peak flows between May 8 and May 14 with daily peak flows ranging from 3,800 cfs to 6,600 cfs or 37 percent below average to 10 percent above average.

Streamflow Forecasts

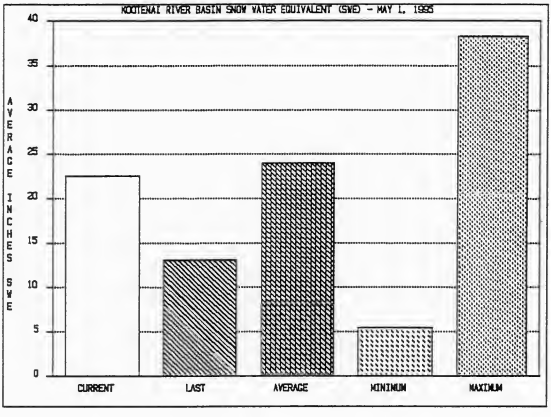
Forecast Pt / Forecast Period	<— Drier — Future Conditions — Wetter —> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
TOBACCO nr Eureka							
MAY-JUL	89	101	109	99	118	130	110
MAY-SEP	99	114	124	100	134	148	124
KOOTENAI bl Libby Dam (1,2)							
MAY-JUL	3830	4480	4780	90	5080	5730	5301
MAY-SEP	4560	5330	5680	90	6030	6800	6294
FISHER nr Libby							
MAY-JUL	114	129	139	85	148	165	163
MAY-SEP	125	141	153	85	163	179	179
YAAK near Troy							
MAY-JUL	280	300	319	86	335	360	372
MAY-SEP	300	325	340	86	360	380	394
KOOTENAI at Leonia (1,2)							
MAY-JUL	4440	5230	5590	90	5950	6740	6223
MAY-SEP	5150	6080	6500	89	6920	7850	7304

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Surface Water Supply Index (SWSI) was -0.3 in the Kootenai River at Ft. Steele (Kootenai in Canada); +0.2 in the Tobacco River; -0.1 in the Kootenai Ft. Steele to Libby Dam; +0.7 in the Kootenai River below Libby Dam; -1.5 in the Fisher River; and -1.4 in the Yaak River.



AVERAGE IS FOR THE PERIOD 1961-1990.

MINIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1977.

MAXIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1974.

FLATHEAD RIVER BASIN as of May 1, 1995

Snowpack conditions in the Flathead River Basin of Montana and Canada were below average. Snow water content for the Flathead in Montana was 13 percent below average; 45 percent above last year; and increased 6 percent during April. Snow water content for the Flathead in Canada was 2 percent below average; 51 percent above last year; and increased 4 percent during April.

Watershed Snowpack Analysis

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
NORTH FORK in CANADA	4	151	98
NORTH FORK in MONTANA	8	145	97
MIDDLE FORK	5	118	83
SOUTH FORK	7	142	81
STILLWATER-WHITEFISH	10	173	91
SWAN	8	142	90
MISSION VALLEY	5	171	105
LITTLE BITTERROOT-ASHLEY	6	5650	52
JOCKO	5	133	76
FLATHEAD in MONTANA	39	145	87
FLATHEAD RIVER BASIN	43	145	88

Mountain precipitation during April was 16 percent below average and 12 percent below last year. Valley precipitation during April was 1 percent above average and 9 percent below last year. Water year precipitation, beginning October 1, 1993, was average and 35 percent above last year.

Reservoir storage on the last day of April was 10 percent below average and 21 percent above last year. Combined Camas reservoir storage was 33 percent below average and 25 percent below last year; the combined Mission Valley reservoir storage was 40 percent below average and 40 percent below last year; Hungry Horse storage was 1 percent below average and 67 percent above last year; and Flathead Lake storage was 26 percent below average and 31 percent below last year.

Reservoir Storage (1000AF) End of April, 1995

Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
CAMAS (4)	45.2	19.0	25.4	28.5
MISSION VALLEY (8)	100.0	29.9	50.0	49.7
HUNGRY HORSE	3451.0	2017.0	1210.0	2043.0
FLATHEAD LAKE	1791.0	690.7	1000.0	937.2

Streamflows, for the period May through July, are forecast to be 21 percent below average and 14 percent above last years forecasts.

The North Fork Flathead near Columbia Falls is forecast to reach peak flows between May 19 and May 29 and daily peak flows ranging from 14,500 cfs to 21,250 cfs or 29 percent below average to 4 percent above average; the Middle Fork Flathead near West Glacier is forecast to reach peak flows between May 19 and May 29 and daily peak flows ranging from 10,500 cfs to 16,000 cfs or 52 percent below average to 27 percent below average; inflow to Hungry Horse Reservoir is forecast to reach peak flows between May 19 and May 26; and the Swan near Big Fork is forecast to reach peak flows between May 22 and June 7 and daily peak flows ranging from 3,100 cfs to 5,100 cfs or 44 percent below average to 2 percent below average.

Streamflow Forecasts

	<— Drier —	Future Conditions	— Wetter —>			
Forecast Pt	Chance of Exceeding *					
Forecast Period	90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
NF FLATHEAD nr Columbia Falls							
MAY-JUL	1220	1310	1370	93	1430	1520	1474
MAY-SEP	1360	1460	1530	93	1600	1700	1648
MF FLATHEAD nr West Glacier							
MAY-JUL	890	1010	1092	75	1170	1290	1454
MAY-SEP	990	1120	1210	75	1300	1430	1604
SF FLATHEAD nr Columbia Fls (1,2)							
MAY-JUL	1120	1270	1341	75	1410	1560	1777
MAY-SEP	1180	1370	1450	76	1530	1720	1911
FLATHEAD at Columbia Falls (2)							
MAY-JUL	3280	3590	3800	79	4010	4320	4816
MAY-SEP	3590	3950	4190	79	4430	4790	5294
STILLWATER nr Whitefish							
MAY-JUL	120	131	139	90	147	158	155
MAY-SEP	137	150	159	91	168	181	174
WHITEFISH nr Kalispell							
MAY-JUL	67	74	79	86	84	91	92
MAY-SEP	81	87	92	88	97	103	105
SWAN nr Bigfork							
MAY-JUL	355	390	415	85	440	475	491
MAY-SEP	412	456	486	85	517	561	574

Streamflow Forecasts

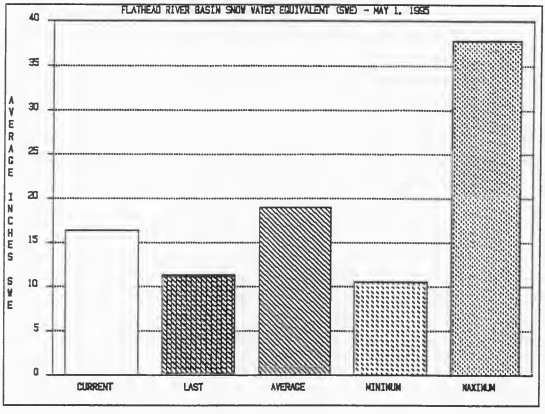
Forecast Pt / Period	<— Drier — 90% (1000AF)	70% (1000AF)	Future Conditions — 50% (Most Prob) (1000AF) (% AVG.)	— Wetter —> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
	Chance of Exceeding *					
FLATHEAD nr Polson (1,2)						
MAY-JUL	3610	4120	4350 78	4580	5090	5578
MAY-SEP	3810	4450	4740 78	5030	5670	6114

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Surface Water Supply Index (SWSI) was -0.4 for the North Fork Flathead River; -1.5 for the Middle Fork Flathead River; -0.6 for the South Fork Flathead River; -0.8 for the Flathead River at Columbia Falls; -0.6 for the Stillwater/Whitefish Rivers; -1.1 for the Swan River; -1.2 for the Flathead River at Polson; -0.9 for the Mission Valley; and -2.7 for the Little Bitterroot River.



AVERAGE IS FOR THE PERIOD 1961-1990.

MINIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1992.

MAXIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1972.

UPPER CLARK FORK RIVER BASIN as of May 1, 1995

Snowpack conditions in the Upper Clark Fork River Basin were below average. Snow water content was 12 percent below average; 74 percent above last year; and increased 12 percent during April.

Watershed Snowpack Analysis

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
CLARK FORK ab FLINT CREEK	12	178	106
FLINT CREEK	6	243	102
ROCK CREEK	5	201	94
CLARK FORK ab BLACKFOOT	20	196	100
BLACKFOOT	15	152	69
UPPER CLARK FORK BASIN	33	174	88

Mountain precipitation during April was 20 percent above average and 3 percent above last year. Valley precipitation during April was 2 percent above average and 27 percent above last year. Water year precipitation, beginning October 1, 1994, was 4 percent below average and 25 percent above last year.

Reservoir storage on the last day of April was 6 percent above average and 12 percent below last year. Georgetown Lake storage was 11 percent above average and 3 percent below last year; Lower Willow Creek storage was 42 percent above average and 8 percent below last year; and Nevada Creek storage was 18 percent below average and 37 percent below last year.

Reservoir Storage (1000AF) End of April

Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
GEORGETOWN LAKE	31.0	27.6	28.4	24.9
LOWER WILLOW CREEK	4.9	4.7	5.1	3.3
NEVADA CREEK	12.6	8.4	12.6	10.2

Streamflows, for the period May through July, are forecast to be 27 percent below average and 44 percent above last years forecasts.

The Blackfoot near Bonner is forecast to reach peak flows between May 22 and May 28 and daily peak flows ranging from 3,200 cfs to 6,100 cfs or 65 percent below average to 33 percent below average; the Clark Fork above Missoula is forecast to reach peak flows between May 26 and June 3 and daily peak flows ranging from 7,500 cfs to 12,500 cfs or 52 percent below average to 20 percent below average; inflow into Lower Willow Creek Reservoir is forecast to reach peak flows during the middle of May; Nevada Creek near Finn is forecast to reach peak flows during the middle of May and daily peak flow ranging from 180 cfs to 380 cfs or 46 percent below average to 2 percent below average; and Middle Fork Rock Creek near Philipsburg is forecast to reach peak flows during the first of June and daily peak flow ranging from 580 cfs to 700 cfs or 32 percent below average to 18 percent below average.

Streamflow Forecasts

Forecast Pt Forecast Period	<— Drier — Future Conditions — Wetter —> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
MOULTON RES inflow (million gal.)							
MAY-JUN	122	155	177	103	199	230	172
MAY-JUL	140	176	200	103	225	260	195
WARM SPRINGS CK at Anaconda (2)							
MAY-JUL	27	33	37	103	41	47	36
MAY-SEP	36	43	47	107	51	58	44
LITTLE BLACKFOOT nr Garrison							
MAY-JUL	27	49	65	94	81	103	69
MAY-SEP	31	56	72	95	89	113	76
FLINT CK nr Southern Cross (2)							
MAY-JUL	5.0	7.9	9.8	81	11.7	14.6	12.1
MAY-SEP	5.7	9.3	11.8	80	14.3	17.9	14.7
FLINT CK bl Boulder Ck							
MAY-JUL	27	37	44	88	51	61	50
MAY-SEP	37	50	58	88	66	79	66
LOWER WILLOW CK RES inflow							
MAY-JUL	1.9	3.6	5.4	47	7.2	9.8	11.4
MAY-SEP	2.5	4.2	6.1	50	8.0	10.7	12.3
MF ROCK CK nr Philipsburg							
MAY-JUL	45	52	57	92	62	69	62
MAY-SEP	51	59	64	93	69	77	69
ROCK CK nr Clinton							
MAY-JUL	169	199	220	83	240	270	264
MAY-SEP	198	230	253	84	275	310	300
NEVADA CK nr Finn							
MAY-JUL	7.6	11.8	14.6	96	17.4	22	15.2
MAY-SEP	8.7	13.2	16.2	96	19.2	24	16.9
CLEARWATER nr Clearwater							
MAY-JUL	78	91	100	75	109	122	133
MAY-SEP	80	97	108	76	120	137	142
BLACKFOOT nr Bonner							
MAY-JUL	280	355	405	57	455	530	714
MAY-SEP	340	420	471	59	525	600	805
CLARK FORK ab Milltown							
MAY-JUL	265	375	450	82	525	635	549
MAY-SEP	335	455	540	83	625	745	652

Streamflow Forecasts

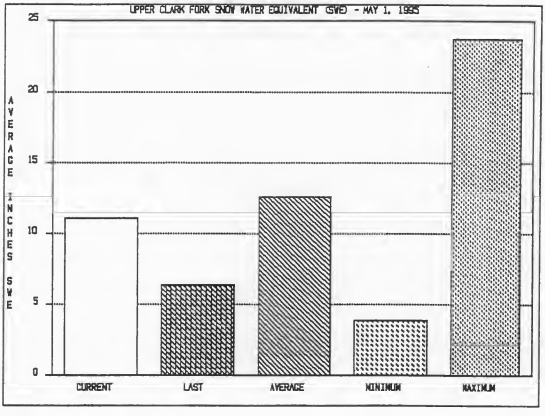
Forecast Pt / Period	<— Drier — 90% (1000AF)	70% (1000AF)	Future Conditions — 50% (Most Prob) (1000AF)	(% AVG.)	— Wetter —> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
	Chance of Exceeding *						
CLARK FORK ab Missoula							
MAY-JUL	575	740	855	68	970	1130	1263
MAY-SEP	715	890	1010	69	1130	1310	1457

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Surface Water Supply Index (SWSI) was -0.5 for the Clark Fork River above Rock Creek; -2.0 for the Blackfoot River; and -1.4 for the Clark Fork River above Missoula.



AVERAGE IS FOR THE PERIOD 1961-1990.

MINIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1977.

MAXIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1972.

BITTERROOT RIVER BASIN as of May 1, 1995

Snowpack conditions in the Bitterroot River Basin were below average. Snow water content was 21 percent below average; 95 percent above last year; and increased 4 percent during April.

Watershed Snowpack Analysis

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
WEST FORK BITTERROOT	3	204	91
EAST SIDE BITTERROOT	5	215	96
WEST SIDE BITTERROOT	3	169	67
BITTERROOT RIVER BASIN	10	195	79

Mountain precipitation during April was 9 percent above average and 7 percent above last year. Valley precipitation during April was 5 percent below average and 54 percent below last year. Water year precipitation, beginning October 1, 1994, was average and 37 percent above last year.

Reservoir storage, on the last day of April, was 5 percent below average and 5 percent below last year. Painted Rocks Lake storage was 41 percent below average and 38 percent below last year and Como storage was 30 percent above average and 24 percent above last year.

Reservoir Storage (1000AF) End of April

Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
PAINTED ROCKS LAKE	31.7	11.8	19.0	20.0
COMO	34.9	26.3	21.2	20.2

Streamflows, for the period May through July, are forecast to be 22 percent below average and 68 percent above last years forecasts.

The Bitterroot near Darby is forecast to reach peak flows between May 13 and June 6 and daily peak flows ranging from 3,900 cfs to 6,100 cfs or 34 percent below average to 4 percent above average.

Streamflow Forecasts

	<== Drier ==	Future Conditions	== Wetter ==>			
Forecast Pt	Chance of Exceeding *					
Forecast Period	90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
WF BITTERROOT nr Conner (2)							
MAY-JUL	83	100	112	84	124	141	134
MAY-SEP	94	112	124	84	136	155	148
BITTERROOT nr Darby							
MAY-JUL	255	310	345	79	380	435	435
MAY-SEP	300	355	390	81	425	480	484

Streamflow Forecasts

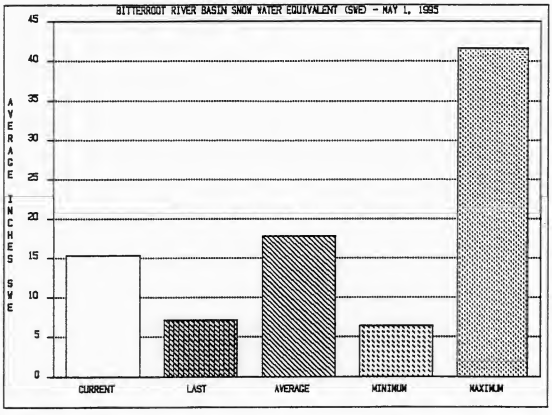
Forecast Pt / Forecast Period	<— Drier — 90% (1000AF)	70% (1000AF)	Future Conditions — Chance of Exceeding * — 50% (Most Prob) (1000AF)	50% (% AVG.)	— Wetter —> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
ROCK CK nr Darby (2)							
MAY-JUL	49	55	59	86	63	69	69
MAY-SEP	55	61	65	89	69	76	73
SKALKAHO CK nr Hamilton							
MAY-JUL	23	28	31	72	34	39	43
MAY-SEP	29	34	38	76	42	47	50
BURNT FORK CK nr Stevensville (2)							
MAY-JUL	16.0	20	23	85	26	30	27
MAY-SEP	20	25	28	88	31	36	32
BITTERROOT at Missoula							
MAY-JUL	685	800	875	76	950	1060	1149
MAY-SEP	765	885	965	76	1050	1170	1266

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Surface Water Supply Index (SWSI) was -1.2 for the Bitterroot River.



AVERAGE IS FOR THE PERIOD 1961-1990.

MINIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1987.

MAXIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1972.

LOWER CLARK FORK RIVER BASIN as of May 1, 1995

Snowpack conditions in the Lower Clark Fork River Basin were below average. Snow water content was 24 percent below average; 64 percent above last year; and increased 5 percent during April.

Watershed Snowpack Analysis

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
LOWER CLARK FORK	11	164	76

Mountain precipitation during April was 13 percent below average and 10 percent below last year. Valley precipitation during April was 9 percent below average and 33 percent below last year. Water year precipitation, beginning October 1, 1994, was 2 percent below average and 42 percent above last year.

Noxon Rapids storage, on the last day of April, was 57 percent above average and 3 percent above last year.

Reservoir Storage (1000AF) End of April

Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
NOXON RAPIDS	335.0	326.8	318.8	208.7

Streamflows, for the period May through July, are forecast to be 13 percent above average and 29 percent above last year.

The Clark Fork below Missoula is forecast to reach peak flows between May 26 and June 3 and daily peak flows ranging from 17,000 cfs to 27,000 cfs or 44 percent below average to 9 percent below average and the Clark Fork at St. Regis is forecast to reach peak flows between May 26 and June 3 and daily peak flows ranging from 20,500 cfs to 32,000 cfs or 46 percent below average to 16 percent below average.

Streamflow Forecasts

	<== Drier ==	Future Conditions	== Wetter ==>		
Forecast Pt	Chance of Exceeding *				
Forecast Period	90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
CLARK FORK ab Missoula							
MAY-JUL	575	740	855	68	970	1130	1263
MAY-SEP	715	890	1010	69	1130	1310	1457
CLARK FORK bl Missoula							
MAY-JUL	1300	1560	1740	72	1920	2180	2413
MAY-SEP	1500	1780	1970	72	2160	2440	2724
CLARK FORK at St. Regis (1)							
MAY-JUL	1510	1990	2210	70	2430	2910	3152
MAY-SEP	1690	2230	2480	70	2730	3270	3561

Streamflow Forecasts

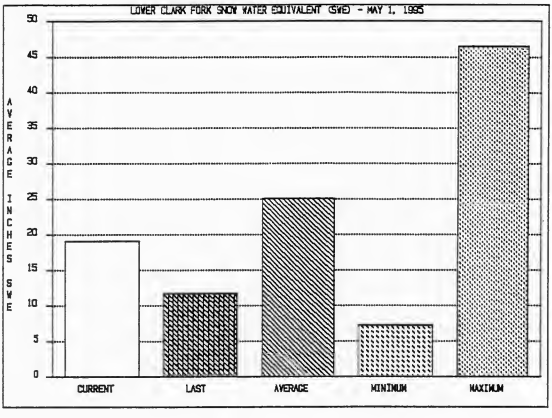
Forecast Pt / Forecast Period	<— Drier — Future Conditions — Wetter —> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
THOMPSON RIVER nr Thompson Falls							
MAY-JUL	90	111	126	75	141	162	169
MAY-SEP	109	133	149	76	165	189	196
PROSPECT CREEK at Thompson Falls							
MAY-JUL	59	68	74	79	80	89	94
MAY-SEP	66	76	82	80	88	98	103
CLARK FK near Plains (1,2)							
MAY-JUL	5180	6230	6700	74	7170	8220	9052
MAY-SEP	5810	6970	7500	74	8030	9190	10080
CLARK FK at Whitehorse Rpds (1,2)							
MAY-JUL	5320	6560	7130	71	7700	8940	10020
MAY-SEP	5880	7270	7900	71	8530	9920	11200

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Surface Water Supply Index (SWSI) was -1.1 for the Clark Fork River below Bitterroot River and -1.2 for the Clark Fork River below Flathead River.



AVERAGE IS FOR THE PERIOD 1961-1990.

MINIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1977.

MAXIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1972.

JEFFERSON RIVER BASIN as of May 1, 1995

Snowpack conditions in the Jefferson River Basin were well above average. Snow water content was 37 percent above average; 159 percent above last year; and increased 28 percent during April. Snow water content was about 7 inches higher than it was in 1984, during the flood, and only 1.5 inches below the record high of 1975. Obviously the basin is "loaded" with water for this time of year.

Watershed Snowpack Analysis

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
BEAVERHEAD	15	284	150
RUBY	9	303	148
BIGHOLE	15	212	121
BOULDER	7	212	133
JEFFERSON RIVER BASIN	38	259	137

Mountain precipitation during April was 59 percent above average and 63 percent above last year. Valley precipitation during April was 49 percent above average and 82 percent above last year. Water year precipitation, beginning October 1, 1994, was 26 percent above average and 79 percent above last year.

Reservoir storage, on the last day of April, was 5 percent below average and 19 percent below last year. Lima storage was 18 percent below average and 41 percent below last year; Clark Canyon storage was 7 percent below average and 15 percent below last year; and Ruby River storage was 20 percent above average and 10 percent above last year.

Reservoir Storage (1000AF) End of April

Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
LIMA	84.0	45.4	77.6	55.1
CLARK CANYON	255.6	151.5	179.2	162.4
RUBY RIVER	38.8	43.4	39.5	36.3

Streamflows, for the period May through July, are forecast to be 37 percent above average and 246 percent above last year.

The Big Hole near Melrose is forecast to reach peak flows during the first week in May and daily peak flows ranging from 6,700 cfs to 9,700 cfs or 9 percent below average to 31 percent above average; the Ruby above Ruby Reservoir is forecast to reach peak flows between June 6 and June 15 and daily peak flows ranging from 1,300 cfs to 1,800 cfs or 31 percent above average to 82 percent above average; the Missouri at Toston is forecast to reach peak flows between June 8 and June 16 and daily peak flow ranging from 21,250 cfs to 29,250 cfs or 19 percent above average to 64 percent above average; and inflow into Clark Canyon Reservoir is forecast to reach peak flows between June 4 and June 11 and daily peak flows ranging from 1,450 cfs to 2,450 cfs.

Streamflow Forecasts

Forecast Pt / Forecast Period	<— Drier — Future Conditions — Wetter —> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
RED ROCK RIVER near Monida (2)							
MAY-JUL	71	85	95	132	105	119	72
MAY-SEP	80	97	108	135	120	137	80
BEAVERHEAD RIVER near Grant (2)							
MAY-JUL	99	129	150	163	171	200	92
MAY-SEP	121	164	193	168	220	265	115
BEAVERHEAD RIVER at Barretts (2)							
MAY-JUL	138	164	182	147	200	225	124
MAY-SEP	183	215	233	150	255	285	155
RUBY RIVER near Alder							
MAY-JUL	103	117	127	174	137	151	73
MAY-SEP	122	139	151	170	163	180	89
BIG HOLE RIVER near Melrose							
MAY-JUL	460	555	620	112	685	780	555
MAY-SEP	510	610	680	111	750	850	612
BOULDER RIVER near Boulder							
MAY-JUL	60	74	84	112	94	108	75
MAY-SEP	66	81	92	114	103	119	81
WILLOW CREEK near Harrison							
MAY-JUL	13.8	18.7	22	146	25	30	15.1
MAY-SEP	14.6	21	25	144	29	35	17.4
JEFFERSON RIVER near Three Forks (2)							
MAY-JUL	835	1010	1132	151	1250	1430	749
MAY-SEP	955	1150	1281	152	1410	1610	841

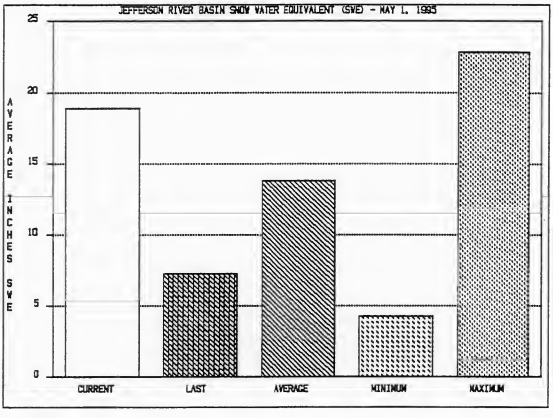
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

Surface Water Supply Index (SWSI) was +1.2 for the Jefferson River; +0.7 for the Beaverhead River; +3.1 for the Ruby River; +1.0 for the Big Hole River; and +1.4 for the Boulder River.



AVERAGE IS FOR THE PERIOD 1961-1990.

MINIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1977.

MAXIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1975.

MADISON RIVER BASIN as of May 1, 1995

Snowpack conditions in the Madison River Basin were well above average. Snow water content was 43 percent above average; 171 percent above last year; and increased 20 percent during April. The Upper Madison Basin, above Hebgen Dam, has set a new record high snow water content which was previously set in 1974. The West Fork Madison Basin has the second highest snow water content, and is second to 1975.

Watershed Snowpack Analysis

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
MADISON above HEBGEN LAKE	6	276	154
MADISON below HEBGEN LAKE	11	267	136
MADISON RIVER BASIN	17	270	143

Mountain precipitation during April was 45 percent above average and 77 percent above last year. Valley precipitation during April was 87 percent above average and 63 percent above last year. Water year precipitation, beginning October 1, 1994, was 34 percent above average and 84 percent above last year.

Reservoir storage, on the last day of April, was 10 percent below average and 22 percent below last year. Ennis Lake storage was 2 percent below average and 6 percent below last year and Hebgen Lake storage was 11 percent below average and 24 percent below last year.

Reservoir Storage (1000AF) End of April

Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
ENNIS LAKE	41.0	34.3	36.5	35.1
HEBGEN LAKE	377.5	219.8	288.4	246.1

Streamflows, for the period May through July, are forecast to be 34 percent above average and 88 percent above last year.

Inflow into Hebgen Reservoir is forecast to reach peak flows between June 4 and June 13 and daily peak flows ranging from 4,350 cfs to 5,300 cfs or 26 percent above average to 54 percent above average.

Streamflow Forecasts

	<== Drier == Future Conditions == Wetter ==>						
Forecast Pt	Chance of Exceeding *						
Forecast Period	90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
MADISON RIVER near Grayling (2)							
MAY-JUL	405	430	450	140	470	495	321
MAY-SEP	520	555	576	135	600	635	428

Streamflow Forecasts

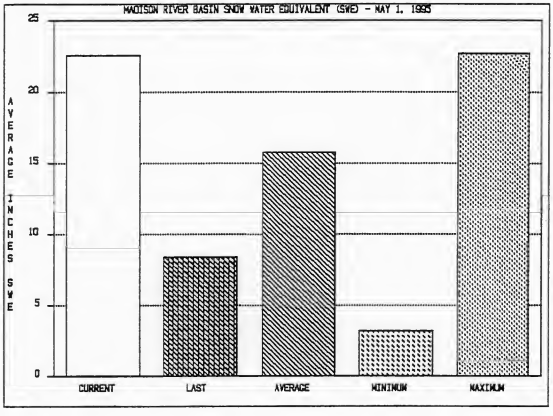
Forecast Pt / Forecast Period	<— Drier — 90% (1000AF)	70% (1000AF)	Future Conditions — Chance of Exceeding * — 50% (Most Prob) (1000AF)	(% AVG.)	— Wetter —> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
MADISON RIVER near McAllister (2)							
MAY-JUL	645	695	731	130	765	820	562
MAY-SEP	835	895	935	128	975	1040	731

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Surface Water Supply Index (SWSI) was +2.4 for the Madison River.



AVERAGE IS FOR THE PERIOD 1961-1990.

MINIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1977.

MAXIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1971.

GALLATIN RIVER BASIN as of May 1, 1995

Snowpack conditions in the Gallatin River Basin were above average. Snow water content was 17 percent above average; 95 percent above last year; and increased 19 percent during April.

Watershed Snowpack Analysis

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
UPPER GALLATIN	7	201	122
HYALITE	3	174	113
BRIDGER	3	201	108
GALLATIN RIVER BASIN	13	195	117

Mountain precipitation during April was 56 percent above average and 97 percent above last year. Valley precipitation during April was 82 percent above average and 89 percent above last year. Water year precipitation, beginning October 1, 1994, was 17 percent above average and 64 percent above last year.

Middle Creek storage, on the last day of April, was 17 percent above average and 2 percent below last year.

Reservoir Storage (1000AF) End of April

Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
MIDDLE CREEK	10.2	5.6	5.7	4.8

Streamflows, for the period May through July, are forecast to be 17 percent above average and 81 percent above last year.

The Gallatin near Gateway is forecast to reach peak flows between June 11 and June 17 and daily peak flows ranging from 5,350 cfs to 6,700 cfs or 3 percent above average to 29 percent above average and the Gallatin near Logan is forecast to reach peak flows between June 11 and June 17 and daily peak flows ranging from 5,200 cfs to 7,100 cfs or 2 percent below average to 34 percent above average.

Streamflow Forecasts

	<== Drier == Future Conditions == Wetter ==>						
Forecast Pt	Chance of Exceeding *						
Forecast Period	90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
GALLATIN RIVER near Gateway							
MAY-JUL	425	460	486	119	510	545	409
MAY-SEP	510	545	574	118	600	640	486
E & W FK HYALITE CREEK nr Bozeman							
MAY-JUL	19.7	22	23	110	24	26	21
MAY-SEP	22	25	26	104	27	30	25

Streamflow Forecasts

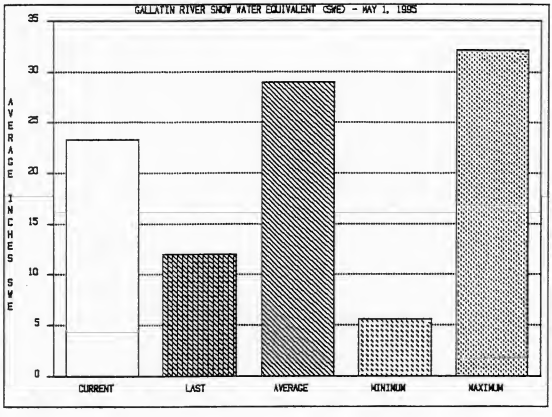
Forecast Pt / Forecast Period	<— Drier — Future Conditions — Wetter —> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
HYALITE CREEK near Bozeman (2)							
MAY-JUL	29	33	35	106	38	41	33
MAY-SEP	33	37	40	103	43	47	39
GALLATIN RIVER at Logan (2)							
MAY-JUL	380	450	500	117	550	620	429
MAY-SEP	460	535	584	114	635	710	512

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Surface Water Supply Index (SWSI) was +1.8 for the Gallatin River.



AVERAGE IS FOR THE PERIOD 1961-1990.

MINIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1987.

MAXIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1970.

MISSOURI MAINSTEM RIVER BASIN as of May 1, 1995

Snowpack conditions in the Mainstem Missouri River Basin were below average. Snow water content was 11 percent below average; 46 percent above last year; and increased 14 percent during April.

Watershed Snowpack Analysis

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
HEADWATERS MAINSTEM	9	182	107
SUN-TETON-MARIAS BASINS	14	107	70
SMITH-JUDITH-MUSSELSHELL	12	187	113
MAINSTEM ab FORT PECK RES	34	147	90
MILK	5	118	57
MISSOURI MAINSTEM BASIN	39	146	89

Mountain precipitation during April was 44 percent above average and 21 percent above last year. Valley precipitation during April was 15 percent above average and 18 percent below last year. Water year precipitation, beginning October 1, 1994, was 1 percent below average and 18 percent above last year.

Reservoir storage, on the last day of April, was 1 percent above average and 3 percent below last year. Canyon Ferry Lake storage was at average and 3 percent below last year; Helena Valley storage was 7 percent above average and 10 percent below last year; Lake Helena storage was 10 percent above average and 4 percent above last year; Hauser & Helena storage was 5 percent above average and 1 percent above last year; Holter Lake storage was 10 percent above average and the same as last year; and Fort Peck Lake storage was 2 percent below average and 8 percent below last year.

Reservoir Storage (1000AF) End of April

Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
CANYON FERRY LAKE	2043.0	1500.0	1554.0	1501.0
HELENA VALLEY	9.2	8.0	8.9	7.5
LAKE HELENA	10.4	11.1	10.7	10.1
HAUSER & HELENA	61.9	63.2	62.5	60.4
HOLTER LAKE	81.9	81.3	81.2	73.9
FORT PECK LAKE (MAF)	18.9	14.7	15.9	15.0

Streamflows, for the period May through July, are forecast to be 23 percent above average and 115 percent above last year.

Streamflow Forecasts

Forecast Pt Forecast Period	<— Drier — Future Conditions — Wetter —> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
MISSOURI RIVER at Toston (2)							
MAY-JUL	1630	2040	2315	134	2590	3000	1730
MAY-SEP	2200	2440	2750	133	3060	3310	2071
PRICKLY PEAR CREEK near Clancy							
MAY-JUL	9.4	16.9	22	110	27	35	20
MAY-SEP	12.0	20	26	108	32	40	24
SUN RIVER at Gibson Dam (2)							
MAY-JUL	205	265	309	70	350	410	441
MAY-SEP	245	310	356	73	400	465	489
MISSOURI RIVER at Fort Benton (2)							
MAY-JUL	2090	2790	3270	126	3750	4450	2597
MAY-SEP	3000	3460	3980	125	4500	4970	3188
MARIAS RIVER near Shelby (2)							
MAY-JUL	177	245	287	74	330	395	387
MAY-SEP	205	270	316	74	360	425	428
MISSOURI RIVER at Virgelle (2)							
MAY-JUL	2270	3050	3570	118	4090	4870	3030
MAY-SEP	3180	3730	4320	118	4910	5590	3652
MISSOURI RIVER near Landusky (2)							
MAY-JUL	2700	3490	4020	123	4550	5340	3279
MAY-SEP	3490	4220	4800	121	5380	6260	3962
MISSOURI RIVER below Fort Peck (2)							
MAY-JUL	2530	3440	4060	122	4680	5590	3327
MAY-SEP	3250	4050	4720	125	5390	6050	3781

Streamflow Forecasts

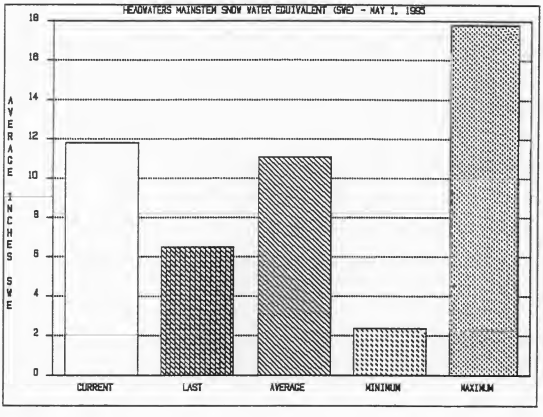
Forecast Pt / Forecast Period	<— Drier — 90% (1000AF)	70% (1000AF)	Future Conditions — 50% (Most Prob) (1000AF)	(% AVG.)	— Wetter —> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
	Chance of Exceeding *						
LAKE SAKAKAWEA Inflow (2)							
MAY-JUL	7040	8960	10260	125	11600	13500	8209
MAY-SEP	9180	10600	12000	124	13300	15300	9658

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Surface Water Supply Index (SWSI) was +1.7 for the Missouri River above Canyon Ferry; +1.3 for the Missouri River below Canyon Ferry; +0.8 for the Missouri River above Ft. Peck; and +0.2 for the Missouri River below Ft. Peck.



AVERAGE IS FOR THE PERIOD 1961-1990.

MINIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1987.

MAXIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1975.

SMITH-JUDITH-MUSSELSHELL RIVER BASINS as of May 1, 1995

Snowpack conditions in the Smith-Judith-Musselshell River Basins were above average. Snow water content was 13 percent above average; 87 percent above last year; and increased 24 percent during April. These basins had the largest increases of any basins from storms during April. The snow water content increases have been substantial.

Watershed Snowpack Analysis

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
SMITH	6	151	105
JUDITH	6	180	115
MUSSELSHELL	5	265	107
SMITH-JUDITH-MUSSELSHELL	12	187	113

Mountain and valley precipitation during April was 35 percent above average and 3 percent below last year and water year precipitation, beginning October 1, 1994, was 3 percent above average and 5 percent above last year. Mountain and valley precipitation in the Smith River during April was 50 percent above average and 2 percent below last year and water year precipitation was 2 percent above average and 9 percent above last year; Mountain and valley precipitation in the Judith River during April was 19 percent above average and 8 percent below last year and water year precipitation was 5 percent above average and 3 percent above last year; and Mountain and valley precipitation in the Musselshell River during April was 17 percent above average and 22 percent above last year and water year precipitation was 6 percent above average and 14 percent below last year.

Reservoir storage, on the last day of April, was 19 percent above average and 4 percent below last year. Smith River storage was 21 percent below average and 37 percent below last year; Newlan storage was 16 percent above average and 20 percent below last year; Bair storage was 21 percent below average and 28 percent below last year; Martinsdale storage was 26 percent below average and 59 percent below last year; and Deadman's Basin was 19 percent above average and 4 percent below last year.

Reservoir Storage (1000AF) End of April

Reservoir	Usable Capacity	********* Usable Storage ********* This Year	Last Year	Average
SMITH RIVER	10.6	7.2	11.5	9.1
NEWLAN CREEK	12.4	10.2	12.7	8.8
BAIR	7.0	4.6	6.4	5.8
MARTINSDALE	23.1	9.2	22.2	12.4
DEADMAN'S BASIN	72.2	64.6	67.5	54.4

Streamflows, for the period May through July, are forecast to be 4 percent below average and 34 percent above last year.

The Smith near Fort Logan is forecast to reach peak flows between June 9 and June 16; Sheep Creek near White Sulphur Springs is forecast to reach peak flows between May 22 and May 28 and daily peak flow ranging from 145 cfs to 215 cfs or 32 percent below average to 1 percent above average.

Streamflow Forecasts

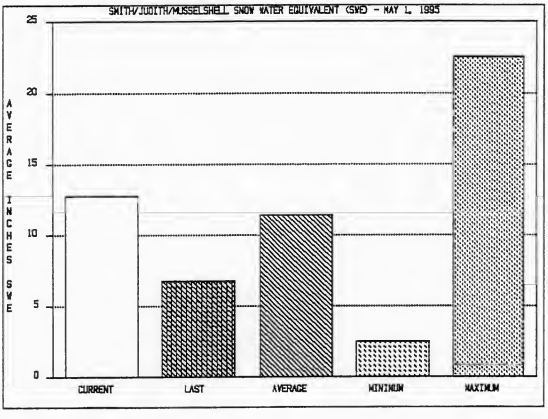
Forecast Pt / Forecast Period	<— Drier — 90% (1000AF)	70% (1000AF)	Future Conditions — Chance of Exceeding * — 50% (Most Prob) (1000AF)	(% AVG.)	— Wetter —> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
SMITH RIVER near Fort Logan							
MAY-JUL	30	43	52	98	61	74	53
MAY-SEP	41	54	63	98	72	85	64
SHEEP CREEK nr White Sulphur Springs							
MAY-JUL	10.5	12.5	13.9	85	15.3	17.3	16.3
MAY-SEP	12.8	15.0	16.5	86	18.0	20	19.2
NF MUSSELSHELL near Delpine							
MAY-JUL	2.2	3.2	3.8	100	4.4	5.4	3.8
MAY-SEP	2.8	3.9	4.6	100	5.3	6.4	4.6
SF MUSSELSHELL abv Martinsdale							
MAY-JUL	18.0	34	45	98	56	72	46
MAY-SEP	21	38	49	98	60	77	50

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Surface Water Supply Index (SWSI) was -0.3 for the Smith River and +0.5 for the Musselshell River.



AVERAGE IS FOR THE PERIOD 1961-1990.

MINIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1987.

MAXIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1970.

SUN-TETON-MARIAS RIVER BASINS as of May 1, 1995

Snowpack conditions in the Sun-Teton-Marias River Basins were below average. Snow water content was 30 percent below average; 7 percent above last year; and increased 9 percent during April. Snow water content in the Sun River Basin was the lowest in the mountain basins across the state.

Watershed Snowpack Analysis

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
SUN	7	117	62
TETON	4	98	75
MARIAS	6	104	74
SUN-TETON-MARIAS BASINS 4	14	107	70

Mountain and valley precipitation during April was 4 percent above average and 26 percent below last year. Water year precipitation, beginning October 1, 1994, was 8 percent below average and 7 percent above last year. Mountain and valley precipitation in the Sun River during April was 37 percent above average and 20 percent below last year; Mountain and valley precipitation in the Teton River during April was 6 percent below average and 26 percent below last year; and Mountain and valley precipitation in the Marias River during April was 2 percent above average and 28 percent below last year.

Reservoir storage, on the last day of April, was 10 percent above average and 16 percent below last year. Gibson storage was 62 percent below average and 69 percent below last year; Pishkun storage was 20 percent above average and 21 percent above last year; Willow Creek storage was 7 percent below average and 26 percent below last year; Lower Two Medicine Lake storage was 196 percent above average and 114 percent above last year; Four Horns Lake storage was 5 percent below average and 8 percent below last year; Swift storage was 10 percent above average and 31 percent below last year; Lake Frances storage was 28 percent below average and 45 percent below last year; and Lake Elwell (Tiber) storage was 19 percent above average and 11 percent below last year.

Reservoir Storage (1000AF) End of April

Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
GIBSON	99.1	22.0	70.1	57.2
PISHKUN	32.0	30.6	25.2	25.4
WILLOW CREEK	32.2	23.0	31.1	24.6
LOWER TWO MEDICINE LAKE	11.9	26.3	12.3	8.9
FOUR HORNS LAKE	19.2	12.1	13.2	12.8
SWIFT	30.0	20.2	29.2	18.3
LAKE FRANCES	112.0	55.9	102.0	77.6
LAKE ELWELL (TIBER)	1347.0	730.5	818.5	611.4

Streamflows, for the period May through July, are forecast to be 27 percent below average and 4 percent above last year.

Inflow into Gibson Reservoir is forecast to reach peak flows between May 27 and June 1 and daily peak flows ranging from 4,400 cfs to 6,200 cfs; Inflow into Swift Reservoir is forecast to reach peak flows between May 30 and June 7 and daily peak flows ranging from 4,900 cfs to 7,350 cfs.

Streamflow Forecasts

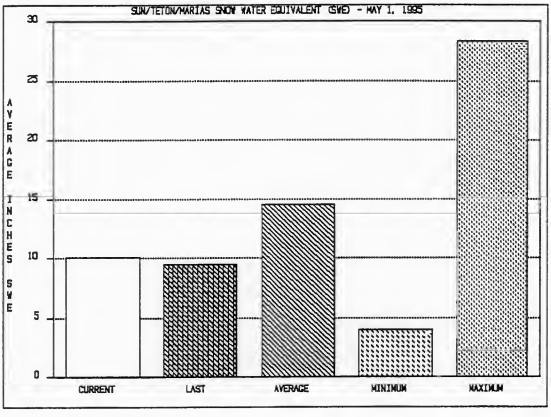
Forecast Pt Forecast Period	<— Drier — Future Conditions — Wetter —> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
SUN RIVER at Gibson Dam (2)							
MAY-JUL	205	265	309	70	350	410	441
MAY-SEP	245	310	356	73	400	465	489
TWO MEDICINE RIVER near Browning (2)							
MAY-JUL	75	112	137	73	162	199	187
MAY-SEP	86	123	148	74	173	210	200
BADGER CREEK near Browning (2)							
MAY-JUL	45	60	70	75	80	96	93
MAY-SEP	58	74	85	77	96	112	110
SWIFT RESERVOIR Inflow near Dupuyer							
MAY-JUL	27	39	47	77	55	67	61
MAY-SEP	37	50	58	79	66	79	73
DUPUYER CREEK near Valier							
MAY-JUL	1.7	3.0	4.3	33	9.4	17.0	13.1
MAY-SEP	2.2	3.6	5.0	33	10.3	18.2	15.0
CUT BANK CREEK at Cut Bank							
MAY-JUL	47	57	63	84	69	79	75
MAY-SEP	54	64	71	85	78	88	84
MARIAS RIVER near Shelby (2)							
MAY-JUL	177	245	287	74	330	395	387
MAY-SEP	205	270	316	74	360	425	428

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Surface Water Supply Index (SWSI) was -2.5 for the Sun River; -2.6 for the Teton River; -1.2 for the Marias River; and -2.2 for Birch/Dupuyer Creeks.



AVERAGE IS FOR THE PERIOD 1961-1990.

MINIMUM SNOW WATER EQUIVALENT, 1964-1994, OCCURRED IN WATER YEAR 1977.

MAXIMUM SNOW WATER EQUIVALENT, 1964-1994, OCCURRED IN WATER YEAR 1972.

ST. MARY and MILK RIVER BASINS as of May 1, 1995

Snowpack conditions in the St. Mary River Basin were below average and in the Milk River Basin were well below average. Snow water content in the St. Mary River Basin was 23 percent below average; the same as last year; and decreased 1 percent during April. In the Milk River Basin was 43 percent below average; 18 percent above last year; and decreased 27 percent during April.

Watershed Snowpack Analysis

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
ST. MARY RIVER BASIN	8	100	77
BEARPAW MOUNTAINS	5	118	57
CYPRESS HILLS, CANADA	0	0	0
MILK RIVER BASIN	5	118	57
ST. MARY and MILK BASINS	13	100	76

Mountain and valley precipitation during April was 2 percent below average and 3 percent below last year and water year precipitation, beginning October 1, 1994, was 2 percent below average and 9 percent above last year. Mountain and valley precipitation in the St. Mary River during April was 15 percent below average and the same as last year and water year precipitation, beginning October 1, 1994, was 3 percent below average and 21 percent above last year. Mountain and valley precipitation in the Milk River during April was 12 percent above average and 5 percent below last year. Water year precipitation, beginning October 1, 1994, was 1 percent below average and 11 percent below last year

Reservoir storage, on the last day of April, was 15 percent below average and 35 percent below last year. Lake Sherburne storage was 1 percent below average and 55 percent below last year; Fresno storage was 18 percent below average and 24 percent below last year; Beaver Creek storage was 16 percent above average and 17 percent below last year; and Nelson storage was 18 percent below average and 41 percent below last year.

Reservoir Storage (1000AF) End of April

Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
LAKE SHERBURNE	64.3	20.6	45.9	20.8
FRESNO	127.0	78.6	103.6	95.8
BEAVER CREEK	3.5	2.9	3.5	2.5
NELSON	66.8	35.0	59.2	42.7

Streamflows in the St. Mary, for the period May through July, are forecast to be 18 percent below average and 17 percent above last year. Streamflows in the Milk, for the period May through July, are forecast to be 38 percent below average and 13 percent below last year.

Streamflow Forecasts

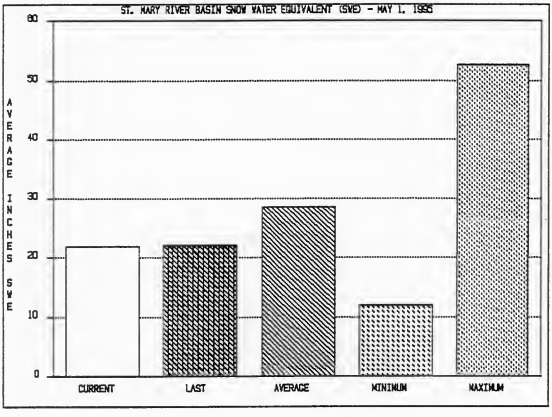
Forecast Pt / Forecast Period	<— Drier — Future Conditions — Wetter —> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
SWIFTCURRENT CREEK at Sherburne (2)							
MAY-JUL	72	78	82	84	86	92	98
MAY-SEP	85	93	98	85	103	111	115
ST. MARY RIVER near Babb							
MAY-JUL	270	290	303	82	315	335	371
MAY-SEP	320	345	364	83	385	410	439
ST. MARY RIVER at International Boundary (2)							
MAY-JUL	316	342	360	84	378	404	429
MAY-SEP	371	409	434	86	459	497	506
MILK RIVER at Western Crossing							
MAY-JUL	8.0	14.0	18.0	72	22	29	25
MAY-SEP	10.0	16.0	20	74	24	30	27
MILK RIVER at Eastern Crossing (2)							
MAY-JUL		12.0	20	56	28	41	36
MAY-SEP	10.0	20	27	60	34	44	45
BEAVER CREEK near Havre							
MAY-JUL	0.5	4.0	6.3	81	8.6	12.1	7.8

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

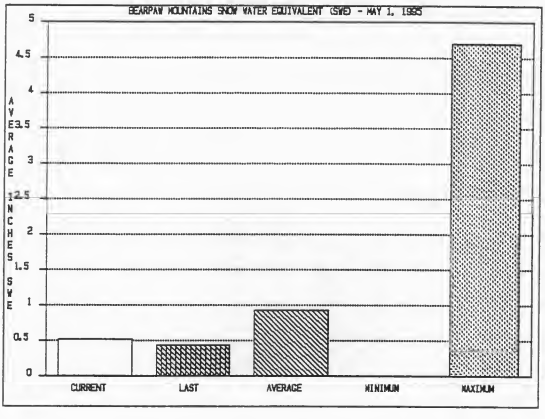
Surface Water Supply Index (SWSI) was -1.7 for the Milk River.



AVERAGE IS FOR THE PERIOD 1961-1990.

MINIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1977.

MAXIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1972.



AVERAGE IS FOR THE PERIOD 1961-1990.

MINIMUM SNOW WATER EQUIVALENT, 1973-1994, AND HAS OCCURRED IN SEVERAL WATER YEARS.

MAXIMUM SNOW WATER EQUIVALENT, 1973-1994, WAS 4.7 INCHES AND OCCURRED IN WATER YEAR 1975.

UPPER YELLOWSTONE RIVER BASIN as of May 1, 1995

Snowpack conditions in the Upper Yellowstone River Basin were above average. Snow water content was 19 percent above average; 85 percent above last year; and increased 23 percent during April.

Watershed Snowpack Analysis

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
YELLOWSTONE ab LIVINGSTON	16	183	120
SHIELDS	5	234	121
BOULDER-STILLWATER	4	156	108
CLARK'S FORK-ROCK CREEK	13	167	114
UPPER YELLOWSTONE BASIN	34	185	119

Mountain precipitation during April was 49 percent above average and 82 percent above last year. Valley precipitation during April was 48 percent above average and 70 percent above last year. Water year precipitation, beginning October 1, 1994, was 15 percent above average and 44 percent above last year.

Reservoir storage, on the last day of April, was 15 percent above average and 3 percent above last year. Mystic Lake storage was 58 percent below average and 27 percent below last year and Cooney storage was 23 percent above average and 4 percent above last year.

Reservoir Storage (1000AF) End of April

Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
MYSTIC LAKE	21.0	0.8	1.1	1.9
COONEY	27.4	23.8	22.8	19.4

Streamflows, for the period May through July, are forecast to be 6 percent above average and 49 percent above last year.

The Yellowstone at Corwin Springs is forecast to reach peak flows between June 16 and June 20 and daily peak flows ranging from 15,250 cfs to 20,750 cfs or 10 percent below average to 23 percent above average; the Yellowstone at Livingston is forecast to reach peak flows between June 16 and June 20 and daily peak flows ranging from 17,500 cfs to 23,500 cfs or 12 percent below average to 19 above average; the Boulder near Big Timber is forecast to reach peak flows between June 16 and June 20 and daily peak flows ranging from 4,400 cfs to 6,400 cfs or 13 percent below average to 27 percent above average; the Stillwater near Absarokee is forecast to reach peak flows between June 16 and June 20 and daily peak flows ranging from 5,5000 cfs to 8,300 cfs or 13 percent below average to 32 percent above average; the Yellowstone at Billings is forecast to reach peak flows between June 17 and June 21 and daily peak flows ranging from 35,000 cfs to 49,500 cfs or 14 percent below average to 21 percent above average.

Streamflow Forecasts

Forecast Pt / Forecast Period	<— Drier — Future Conditions — Wetter —> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
YELLOWSTONE at Lake Outlet							
MAY-JUL	485	535	567	105	600	650	538
MAY-SEP	695	755	795	105	835	895	756
YELLOWSTONE RIVER at Corwin Springs							
MAY-JUL	1450	1540	1592	105	1650	1730	1516
MAY-SEP	1760	1860	1928	105	2000	2100	1844
YELLOWSTONE RIVER near Livingston							
MAY-JUL	1650	1760	1831	105	1910	2020	1737
MAY-SEP	2000	2130	2227	105	2320	2460	2123
SHIELDS RIVER near Livingston							
MAY-JUL	116	142	160	119	178	205	134
MAY-SEP	132	160	178	118	197	225	151
BOULDER RIVER at Big Timber							
MAY-JUL	275	310	330	102	355	385	322
MAY-SEP	300	335	358	102	380	415	350
WEST ROSEBUD CREEK near Roscoe (2)							
MAY-JUL	54	60	64	107	68	74	60
MAY-SEP	68	75	79	103	84	90	77
STILLWATER RIVER nr Absarokee (2)							
MAY-JUL	410	475	516	109	560	620	474
MAY-SEP	520	585	625	110	665	730	569
CLARKS FORK RIVER near Belfry							
MAY-JUL	460	505	536	106	565	610	508
MAY-SEP	525	570	602	106	635	680	566
RED LODGE CREEK blw Cooney Res (2)							
MAY-JUL	21	35	44	116	53	67	38
MAY-SEP	34	47	56	114	65	78	49

Streamflow Forecasts

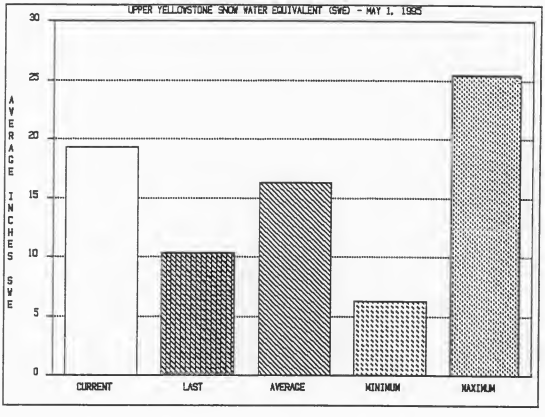
Forecast Pt / Forecast Period	<— Drier — 90% (1000AF)	70% (1000AF)	Future Conditions — 50% (Most Prob) (1000AF) (% AVG.)	— Wetter —> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
	Chance of Exceeding *					
YELLOWSTONE RIVER at Billings (2)						
MAY-JUL	2760	3210	3510 106	3810	4260	3320
MAY-SEP	3640	3820	4150 105	4480	4670	3954

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Surface Water Supply Index (SWSI) was +0.4 for the Yellowstone River above Bighorn River; +0.5 for the Yellowstone River above Livingston; +1.6 for the Shields River; +0.2 for the Boulder River; +0.6 for the Stillwater River; +1.2 for the Rock/Red Lodge Creeks; and +0.2 for the Clarks Fork River.



AVERAGE IS FOR THE PERIOD 1961-1990.

MINIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1987.

MAXIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1971.

LOWER YELLOWSTONE RIVER BASIN as of May 1, 1995

Snowpack conditions in the Lower Yellowstone River Basin were above average. Snow water content was 17 percent above average; 71 percent above last year; and increased 19 percent during April.

Watershed Snowpack Analysis

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
WIND RIVER (Wyoming)	20	204	124
SHOSHONE RIVER (Wyoming)	7	185	129
BIGHORN RIVER (Wyoming)	21	171	124
LITTLE BIGHORN (WYOMING)	3	98	92
TONGUE RIVER (Wyoming)	9	128	101
POWDER RIVER (Wyoming)	9	184	117
LOWER YELLOWSTONE BASIN	49	172	118

Mountain and valley precipitation during April was 37 percent above average and 46 percent above last year. Water year precipitation, beginning October 1, 1994, was 22 percent above average and 29 percent above last year.

Reservoir storage, on the last day of April, was near average and 2 percent below last year. Bighorn Lake storage was average and 2 percent below last year and the Tongue River storage was 14 percent below average and 11 percent above last year.

Reservoir Storage (1000AF) End of April

Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
BIGHORN LAKE	1356.0	790.1	809.4	789.2
TONGUE RIVER	68.0	31.4	28.4	36.6

Streamflows, for the period May through July, are forecast to be 12 percent above average and 56 percent above last year.

Streamflow Forecasts

Forecast Pt Forecast Period	<— Drier — Future Conditions — Wetter —> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
YELLOWSTONE RIVER at Billings (2)							
MAY-JUL	2760	3210	3510	106	3810	4260	3320
MAY-SEP	3640	3820	4150	105	4480	4670	3954
BIGHORN RIVER nr St. Xavier (2)							
MAY-JUL	1550	1750	1880	125	2010	2210	1508
MAY-SEP	1770	1970	2100	126	2230	2430	1673

Streamflow Forecasts

Forecast Pt Forecast Period	<— Drier — 90% (1000AF)	70% (1000AF)	Future Conditions — Chance of Exceeding * — 50% (Most Prob) (1000AF)	(% AVG.)	— Wetter —> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
LITTLE BIGHORN RIVER nr Hardin							
MAY-JUL	56	89	112	95	135	168	118
MAY-SEP	66	104	129	96	155	192	135
TONGUE RIVER stateline nr Decker (2)							
MAY-JUL	139	182	212	102	240	285	208
MAY-SEP	159	205	236	101	265	315	234
YELLOWSTONE RIVER at Miles City (2)							
MAY-JUL	4080	4930	5500	111	6070	6920	4957
MAY-SEP	5310	5870	6500	111	7130	7880	5835
POWDER RIVER at Moorhead							
MAY-JUL	132	161	181	99	200	230	182
MAY-SEP	156	186	206	101	225	255	204
POWDER RIVER near Locate							
MAY-JUL	117	161	190	90	220	265	211
MAY-SEP	119	177	216	92	255	315	234
YELLOWSTONE RIVER nr Sidney (2)							
MAY-JUL	3850	5100	5950	111	6800	8050	5383
MAY-SEP	5270	6010	7050	112	8090	9150	6268

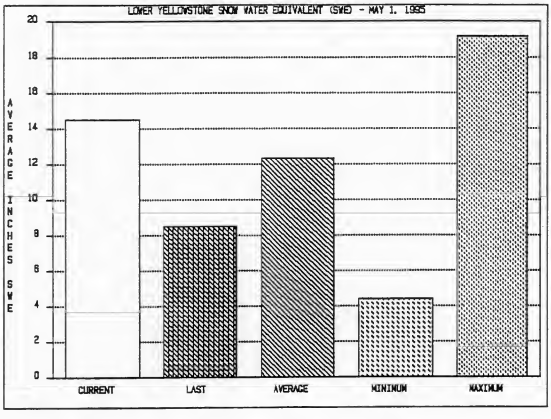
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

Surface Water Supply Index (SWSI) was +0.9 for the Yellowstone River below Bighorn River; +1.5 for the Bighorn River below Bighorn Lake; -0.5 for the Little Bighorn River; +0.3 for the Tongue River; and +0.6 for the Powder River.



AVERAGE IS FOR THE PERIOD 1961-1990.

MINIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1981.

MAXIMUM SNOW WATER EQUIVALENT, 1961-1994, OCCURRED IN WATER YEAR 1971.

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Montana
Basin Outlook Report

Natural Resources Conservation Service
Bozeman, MT